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THREE NEW SPECIES OF *AMBRYSUS* FROM MEXICO (HEMIPTERA: NAUCORIDAE)

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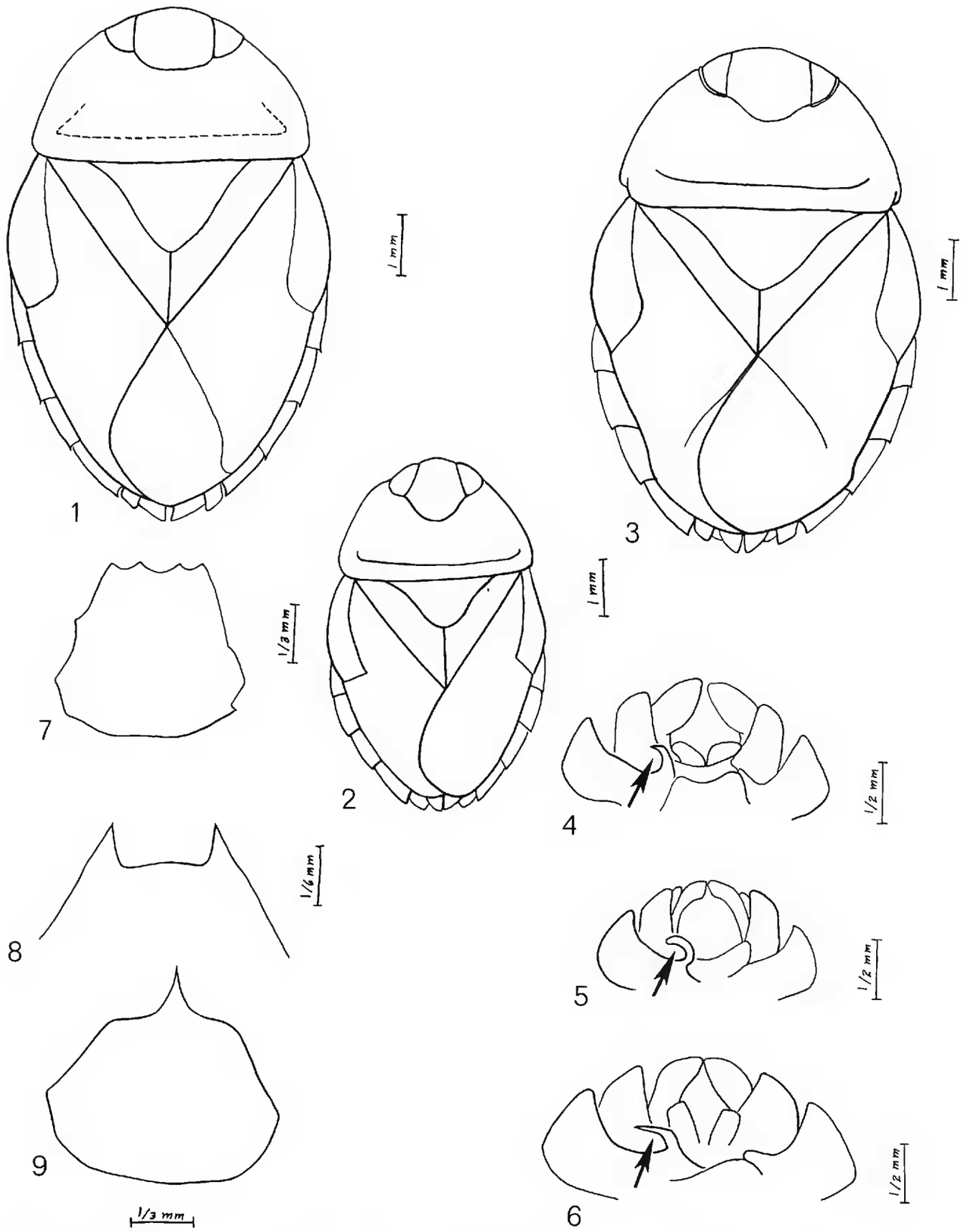
The following new species of Naucoridae, along with others, have been in manuscript for some time. This publication is one result of a long term study on centers of speciation of Nepomorpha in America north of the Isthmus of Panama. During our many expeditions to Mexico and Middle America we have studied and collected most of the naucorids known from the region and a number of undescribed taxa. The late Ira LaRivers regularly described species from this area but did not utilize our extensive material. The authors would welcome naucorid material from the Americas for study and determination.

Most material reported here is in the J. T. Polhemus Collection (JTP); additional material from the California Academy of Sciences (CAS) has been made available for study through the kindness of Dr. Paul Arnaud. For all measurements, 40 units = 1 mm unless otherwise noted.

Ambrysus colimanus, new species
(Figs. 1, 4, 7)

General appearance.—Of moderate size, ovate, shape as in Fig. 1. Ground color yellowish, dorsum with strongly contrasting dark markings similar to *Ambrysus lunatus* Usinger; faintly shining; head and pronotum shallowly rugose and punctate; scutellum finely rugulose. Venter and legs yellow brown to luteus, spines on legs golden brown.

Structure.—Head with eyes not raised above surface dorsally; vertex moderately produced behind eyes; labrum shallowly triangular in shape, width/length = 23/13, bluntly rounded apically; eyes convergent anteriorly, posterior/anterior interocular space = 54/41. Pronotum with lateral margins slightly convex, smooth; posterolateral angles rounded; width/length (midline) = 167/57. Scutellum wider than long, width/length = 130/50; sinuate along lateral margins. Hemelytra fully developed; embolium weakly expanded, not sinuate posteriorly; entire surface set with minute white nodules, denser and more obvious on darkened portions. Connexival margins weakly serrate; posterolateral angles weakly spinose. Foreleg femur length/width = 73/43; tarsi slightly exceeding adjacent proximal part of femur. Middle and posterior femora with a close-set row of small spines posterodorsally; middle and posterior tibia set with numerous stout spines; distally



Figs. 1–9. *Ambrysus* n. spp. Figs. 1–3. Dorsal view of body, legs not shown. 1. *A. colimanus* n. sp. 2. *A. baeus* n. sp. 3. *A. spiculus* n. sp. Figs. 4–6. Dorsal view of male abdominal tergites V–VII showing male genital process (arrow) on right side (left in figures) of tergite V. 4. *A. colimanus* n. sp. 5. *A. baeus* n. sp. 6. *A. spiculus* n. sp. Figs. 7–9. Ventral view of female subgenital plate, hairy vestiture not shown. 7. *A. colimanus* n. sp. 8. *A. baeus* n. sp. 9. *A. spiculus* n. sp.

with two transverse rows of small spines. Propleura not contiguous with prosternum; propleura separated slightly medially, widely separated there from mesosternum.

Male genital process as in Fig. 4; female subgenital plate shape as shown in Fig. 7.

Length 7.8 mm, width 5.0 mm (male holotype).

Material.—Holotype, male, and allotype, female, MEXICO, Colima, Ameria (River), CL1229, XI-26-68, J. T. Polhemus (JTP). Paratypes, 6 ♂♂, 3 ♀♀, same data as holotype (JTP).

Etymology.—The name *colimanus* is derived from Colima, the Mexican state of origin. Masculine.

Discussion

The male genitalia of *Ambrysus colimanus* are very similar to *Ambrysus signoreti* Stal; the female subgenital plate is also similar to *signoreti,* but not flared laterally as in the latter. *A. colimanus* differs from *signoreti* in having a different coloration, eyes more convergent anteriorly over all their length, and body length only about half that of *signoreti.* The coloration of *colimanus* is quite similar to that of *Ambrysus lunatus* Usinger, but the latter has a more rugose dorsum and different genital structures.

Ambrysus baeus, new species
(Figs. 2, 5, 8)

General appearance.—Small, ovate, shape as in Fig. 2. Ground color yellowish to yellow brown; dorsal markings not strongly contrasting, scutellum and hemelytra marked with dark brown, similar to *Ambrysus pygmaeus* LaRivers; faintly shining, many specimens encrusted and dull; head and pronotum shallowly punctate and shallowly rugose; scutellum and hemelytra finely rugulose. Venter and legs yellow to yellow brown, spines on legs golden brown.

Structure.—Head with eyes moderately raised above surface dorsally; lateral margin narrow, not reflexed; vertex strongly produced behind eyes (see Fig. 2); labrum not produced anteriorly, broadly rounded apically, twice as broad as long, width/length = 16/8; eyes convergent anteriorly over all their length, posterior/anterior interocular space = 37/27. Pronotum with lateral angles convex, smooth, straight or faintly sinuate just anterad of posterolateral angles; latter sharply rounded; width/length (on mid-line) = 120/39. Scutellum wider than long, width/length = 80/36; sinuate along lateral margins. Hemelytra fully developed; membrane not clearly differentiated, coriaceous; embolium weakly expanded; entire surface thickly set with tiny round pits appearing white against dark background. Connexival angles not serrate; posterolateral angles forming a right angle, not spinose.

Foreleg femur length/width = 57/39; tarsi clearly reaching beyond adjacent proximal part of femur. Middle and posterior femora each with a close-set row of tiny almost invisible spines posterodorsally. Middle and posterior tibia with numerous short spines; distally set with two transverse rows of close-set spines. Propleura contiguous with prosternum, both on same plane; propleura contiguous medially, contiguous there with mesosternum.

Male genital segments as in Fig. 5; female genital segments as in Fig. 8.

Length 5.75 mm; width 3.65 mm (male holotype).

Material.—Holotype, male, and allotype, female, MEXICO, Nayarit, Aticama, CL727A, VI-7-1975, J. T. Polhemus (JTP). Paratypes: 19 ♂♂, 19 ♀♀, 12 nymphs, same data as holotype (JTP); 2 ♂♂, 5 ♀♀, 1 nymph, MEXICO, Nayarit, 15 mi E San Blas, CL1026, J. T. & M. S. Polhemus (JTP); 2 ♂♂, 5 ♀♀, MEXICO, Colima, Ameria (River), CL1229, XI-26-1968, J. T. Polhemus (JTP); 3 ♂♂, 1 ♀, MEXICO, Jalisco, 300 ft (91 m), Rio Tomatlan, CL736, VI-9-1975, J. T. Polhemus (JTP).

Etymology.—The name *baeus* is derived from the Greek *baios,* meaning small. Masculine.

Discussion

Ambrysus baeus belongs to the same group as *Ambrysus circumcinctus* Montandon and *Ambrysus pygmaeus* LaRivers. *A. baeus* is similar to the latter in appearance and coloration but is much smaller than either *circumcinctus* or *pygmaeus* and has very different male and female pregenital structures. The male process of *pygmaeus* is greatly expanded distally, spatulate, and almost straight; the male process of *circumcinctus* is slender as in *baeus,* but curved only at the base and straight distally; the process in *baeus* is strongly curved over the entire length as shown in Fig. 5. The female subgenital plates of *pygmaeus* and *circumcinctus* are truncate caudad or slightly excavate, but without the strong lateral angulate projections seen in *baeus* (Fig. 8).

Ambrysus spiculus, new species
(Figs. 3, 6, 9)

General appearance.—Of moderate size, ovate, shape as shown in Fig. 3. Ground color brownish yellow, dorsum with extensive dark markings, especially on hemelytra, moderately contrasting; markings similar to those of dark specimens of *Ambrysus vanduzeei* Usinger; faintly shining; head, pronotum and scutellum shallowly punctate; pronotum faintly rugose, scutellum rugulose. Venter brown, abdominal venter thickly clothed with very fine appressed golden pubescence obscuring venter to certain light angles; legs luteus to yellow brown.

Structure.—Head with eyes barely raised above dorsal surface, lateral edge reflexed, carinate; vertex produced behind eyes (see Fig. 3); labrum

broadly rounded apically, twice as broad as long, width/length = 20/10; eyes convergent anteriorly over all their length, posterior/anterior interocular space = 56/40. Pronotum with lateral margins slightly convex, smooth, posterolateral angles rounded; width; length (mid-line) = 178/60. Scutellum wider than long, width/length = 120/50, sinuate along lateral margins. Hemelytra fully developed; embolium weakly expanded, not sinuate posteriorly, rugose; entire surface with tiny round pits, appearing white, thicker and most obvious on darker portions. Connexival margins weakly serrate; posterolateral angles sharply angulate, not spinose. Foreleg femur length/width = 80/48; tarsi just reaching adjacent proximal part of femur. Middle and posterior femora each with a close-set row of small spines posteroventrally and a close-set row of stouter spines posterodorsally. Middle and posterior tibia with numerous stout spines; distally with two transverse rows of close-set spines. Propleura not contiguous with prosternum; propleura contiguous medially, not contiguous there with mesosternum.

Male genital process as in Fig. 6; female subgenital plate as in Fig. 9.

Length 8.2 mm, width 5.4 mm (male holotype).

Material.—Holotype, male, and allotype, female, MEXICO, Durango, La Palmita, CL1018, 20 April 1964, J. T. & M. S. Polhemus (JTP). Paratypes; 8 ♂♂, 7 ♀♀, 10 nymphs, same data as holotype (JTP); 1 ♂, 1 ♀, MEXICO, Zacatecas, 61 mi W of Fresnillo, Alt. 8100 ft (2469 m), pool, stream bed, 25 June 1954, R. H. Brewer (CAS); 5 ♂♂, 7 ♀♀, MEXICO, Durango, La Palmita, CL721, VI-6-1975, J. T. Polhemus (JTP); 1 ♀, MEXICO, Sonora, Rancho Los Banos, CL709, El. 3400 ft (1036 m), VI-3-1975, J. T. Polhemus (JTP).

Etymology.—The Latin name *spiculus* pointed, refers to the shape of the female subgenital plate. Masculine.

Discussion

Ambrysus spiculus is closely related and similar in appearance to *Ambrysus tridentata* LaRivers from Puebla, Mexico. *A. spiculus* differs from the latter in the more convergent eyes, less explanate lateral margins and less rugose dorsum of the pronotum, thinner process on the male fifth tergum, and very different female subgenital plate. The male process in *tridentata* has the shank erect compared to the sloping shank of *spiculus* seen in Fig. 6. The female subgenital plate of *tridentata* has a blunt median projection flanked by two acute shorter angulate projections, whereas *spiculus* has only one thin median projection caudad as shown in Fig. 9.

Footnote

[1] Contribution from the University of Colorado Museum, Boulder 80309 and Martin Marietta Corp., Denver 80201.